Strategy Research Project

COMMAND AND CONTROL ORGANIZATIONS FOR NETWORK ENABLED WARFARE

BY

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USAWC STRATEGY RESEARCH PROJECT

COMMAND AND CONTROL ORGANIZATIONS FOR NETWORK ENABLED WARFARE

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ABSTRACT

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The current US Army command and control headquarters organizations are based upon staff structures that have been in use since the beginning of the 20th Century. These organizations are relatively duplicative and rigid in order to be survivable before robust and redundant communications were the norm. Current Command and Control (C2) systems and technologies have been overlaid on these legacy organizations without altering the fundamentals of their operation.

Business practices show that “horizontal organizations” can produce high performing teams that rapidly solve problems and vastly decrease decision cycles for business organizations. Military organizations have a unique problem set, but it is possible to bring the applicable parts of horizontal organizations into the military structure to gain the same advantages provided by networked systems.

Moving to a more networked structure will require a carefully developed strategy to overcome natural caution and resistance to change. A well formulated strategy with well placed leadership support can produce organizations that are flexible, adaptive and responsive to meet the command and control needs of the 21st century army.

COMMAND AND CONTROL ORGANIZATIONS FOR NETWORK ENABLED WARFARE

The United States Army has spent substantial resources reorganizing units of its force into modular brigade structures, but has made little measurable change to the way headquarters are structured or operate. In practice, the sizes of headquarters continue to grow with little indication of how that growth translated into increased capability. At a time when the Army is complaining that it is "stretched thin," it would seem to be worth examining business models to determine if headquarters could be made more effective with less personnel. The Department of Defense (DoD) expends a significant amount of resources every year for information technology resources. For Fiscal Year 2008 the DoD Information Technology budget alone is estimated to be approximately 38.1 billion dollars.[1] Information technology has produced dramatic shifts in the way businesses organize and operate in order to be effective in a global marketplace.[2]

The early portion of Operation Iraqi Freedom produces some evidence that the Army was dissatisfied with the manner in which current headquarters are organized. The Combined Forces Land Component Command (CFLCC) headquarters was reorganized along functional lines, rather than the traditional structure.[3] This design change was not propagated beyond the CFLCC headquarters. In 2002 to 2003 Military communications technology had not yet sufficiently matured to permit reliable data communications beyond line of sight distance from a headquarters.[4] A recognition of a need for change existed, but the ability to make dramatic shifts was hampered by the state of technology in the United States Army.

The largest impediment to changing the structure and nature of headquarters organizations and methods of operations appears to come from inside the Army and the Department of Defense (DoD), rather than the limitations of technology. Military headquarters have been organized and operated in basically the same manner since the time of Napoleon. This has produced a large pool of shared experiences and cultural identity centered around this paradigm. This paper will examine some of the sources of this resistance and methods for overcoming them.

The development and acquisition of improved communications and network systems, that dramatically improve bandwidth and range, provide the Army with an opportunity to make substantial improvements in how it conducts command and control. The adoption of virtual teams and horizontal organizations provides the Army with an opportunity to increase the speed and effectiveness of its command and control organizations, while reducing the number of personnel required for command and control.

Problems with Current Structures

The United States Army organization for command and control is a hierarchical structure largely unchanged from its inception at the beginning of the 20th century. This staff structure served the Army well for a century, but has not adapted to the changes in information management and control methodologies brought about by using information networks and information tools. As a culture, the Army is resistant to changing the fundamental nature of its organization in order to adopt new methods and structures. With a properly prepared strategy, it would be possible to overcome this cultural resistance and produce the desired change.

The structure of Army organizations from the tactical to the strategic level is so ingrained into the Army culture that in 2002 the Army staff reorganized to reflect a G-1, G-2, G-3 and G-4 with missions and functions nearly identical to those found in lower echelon organizations (see Figure 1).[5] Current Army doctrine goes to great lengths to describe how each staff section functions within its individual battlefield operating systems (BOS), but when discussing coordination it only directly addresses the need to coordinate with the equivalent staff section at other headquarters.[6] This organizational design reinforces the tendencies of staff experts to work within their designated fields and reduces the mechanisms for cross staff coordination when solving specific problems.

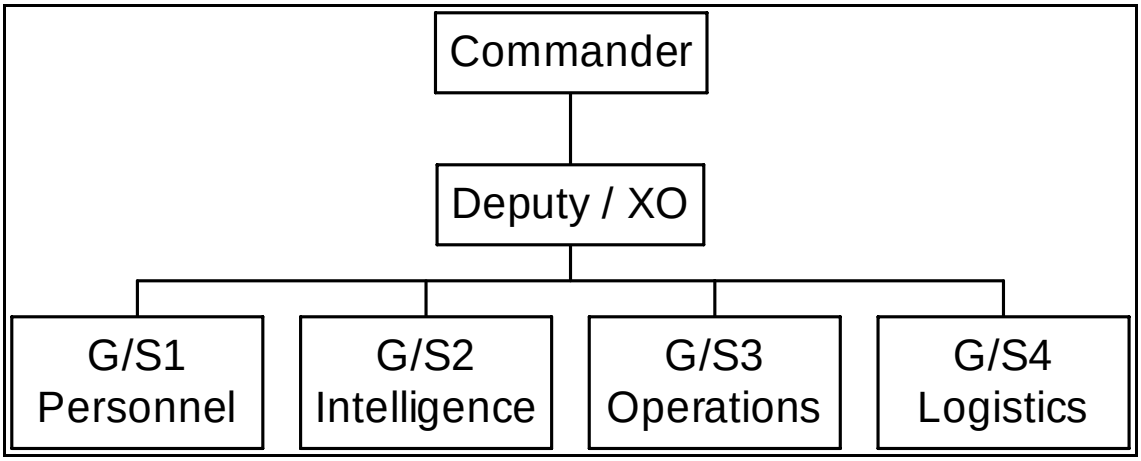

Figure 1: Traditional Army Staff Structure

An argument used in favor of the current structure is that it simplifies staff coordination between echelons of command since a parallel structure exists at each level. Specifically, a battalion S1 coordinates with the brigade S1 who talks to the division G1 and so on. The counter to this argument would be that this also encourages "stovepiping" where each functional area only communicates with those within its

community and does not coordinate well across all battlefield operating systems. This problem is magnified at higher echelons where a personnel (G/J1) staff division might be larger than the entire staff at a brigade level. A business equivalent of this problem would be a company in which the Human Resources Division is very good at managing personnel and compensation, but finds to its surprise that the operating arm of the company is no longer satisfied with the employees that are produced. The Human Resources personnel became so focused on their own metrics that they forgot the real bottom line was the needs of the portion of the company that produces revenue. Commercial businesses are finding that stovepiped organizations that do not communicate horizontally are headed towards failure.[7]

Another argument used in favor of the current Command and Control structure is the need for accountability.[8] Because of the extreme life and death nature of military operations, and the limited conditions which permit violence, a high degree of accountability must be maintained. At the same time with a wise application of network enabled principles the quality of decision making and the information available can actually improve. While virtual teams could potentially increase the span of control of an individual headquarters, they do not eliminate the need for commanders or the need to ensure that decisions are at the appropriate level. Virtual teams require a new paradigm for determining what that level is and how the boundaries are defined.[9]

The third argument used in favor of the existing structure is simply familiarity. The long association with this structure has built a wealth of experience and knowledge on how the current structures are used and how they operate. The military professional education system trains officers and non-commissioned officers in the operations of

these systems. This argument is flawed in many respects. The US military education system provides multiple opportunities to retrain officers and non-commissioned officers on new structures and systems. Multiple historical examples exist of armies which radically changed their training and doctrine and gained a decisive advantage over their enemies. It is clear that any advantage gained will probably only be temporary once opponents identify the method of the advantage and seek to adopt it; however, the earliest adopter can be far more experienced with it than their opponent. In the arena of technology the United States gains a unique advantage by having an exceptionally high percentage of the population coming from a technology savvy background.

Potential Changes

The first change required would be to change the nature of the staff at the lower levels which have the primary responsibility for the execution of violence. The staff must change from a body focused on performing functions to a staff which acts as a conduit between the commander and virtual teams beyond the lower echelon staff. The primary function of a staff member changes from processing information to managing the flow of information. An example would be the role of the intelligence officer, S2, who is currently charged with collecting information, analyzing the collected information, and then processing it into intelligence information for the commander and the operations officer. In a virtual organization, the S2's staff could consist of individuals located far away from the battlefield who correlate and analyze the information for the S2 and then return the processed information back to the S2 for presentation to his commander. The S2 can then focus on determining whether the information meets the

needs of his unit (the customer in business terms) rather than focusing on the technical work of analysis and correlation.

Ensuring effective collaboration within and outside a headquarters has traditionally been a substantial challenge as the size of headquarters grew. Headquarters at echelons above Brigade have traditionally struggled with how to maintain information flow in the constrained physical facilities of a tactical headquarters. Smaller tents are more economical and easier to reposition, but tend to isolate staff sections from each other. Larger "circus" tents can help alleviate that tendency, but are difficult to move and erect, and can hamper some operations by noise and commotion. Even in the best of physical circumstances, collaboration is limited by human nature and distance. At least one source suggests that if people are more than 50 feet apart in their physical work space they are unlikely to collaborate.[10]

The challenges of collaborating are then magnified greatly when individuals work at different headquarters either at the same echelon or at a different echelon. Travel between headquarters can be challenging, time consuming, and perilous. A solution to this is to use "virtual teams" where team members are not physically collocated and rarely meet in person, but work together towards a common goal. Sun Microsystems is an example of a company that used its own technology and faith in computer networks to build virtual teams across time zones and countries in order to improve their ability to accomplish their core missions.[11]

Virtual teams are also described as horizontal teams because most of the participants are usually not in a traditional subordinate-superior hierarchical relationship. Horizontal teams are characterized by a culture of self-governance with a shared

commitment toward a goal or process. The members of the team must have a culture of valuing the accomplishment of this goal over personal self interest. The team must have a shared interest in accountability for long term improvement and effectiveness.[12] On the face of it these would appear to correlate with Army values such as "selfless service." However, as noted above, the military also has a deeply ingrained allegiance to the "chain of command" which translates almost directly to a bureaucratic type structure and mind set. In order to transform to effective virtual teams, leaders of headquarters must undertake a series of steps to effect change.

A second area where change would be beneficial is increasing the span of control of existing headquarters. Currently a modular Division Headquarters is designed to command and control up to six Brigade Combat Teams.[13] Using effective virtual teams most routine decisions can be moved down to lower echelons, freeing higher echelons to focus on the larger picture and more aggregate decisions. This powering down of decisions, coupled with increased speed and accuracy of information should result in commanders being able to command and control a larger number of units in the field without a loss of effectiveness.

The leveraging of technology and virtual teams will have a benefit of actually improving accountability and accuracy of information rather than impeding it. With the proper technology tools it will be possible to know what information was presented to whom and at what time, thus allowing a far greater ability to understand what information was available to a commander when a decision is made. Since staff members will be focused on relevance and timeliness of information presented to the

decider, rather than on the processing of information, the result should be a corresponding improvement in the quality of information on which the decision is based.

In the United States military the barrier to significant change is quite high. The current United States military promotion system emphasizes time in grade and experience as qualifiers for the next grade. As the United States military does not "hire from the outside," senior leadership will appear to have a stake in minimizing, rather than enhancing, change. Simultaneously, the battle-tested group of young leaders emerging from the conflicts in Afghanistan and Iraq appear to be dissatisfied with how the war is being fought by the institution.[14] Some of these same officers will soon be leading the Army and may serve as instruments of future changes.

Resistance to Change

According to Edgar Schein, a methodology for identifying culture in an organization is to look at its artifacts.[15] Military drill and ceremonies are some of the artifacts that are deeply ingrained in military culture throughout the world. The current method of conducting a ceremony positions the staff, consisting of the adjutant (S1), S2, S3, and S4, on the parade field with the commander of the unit.[16] While these ceremonies do not prescribe the functions of these staff officers, with the exception of the adjutant, they do provide an indication of how important these positions are in the military culture. A further indication of the importance of these positions to the military culture is that for most officers in the United States Army it is considered critical for officers to serve in the position of Battalion Operations Officer (S3) in order to be considered qualified as a field grade officer.[17]

The Army's Field Manual 5-0 outlines the Army's doctrine for problem solving.[18] The doctrine goes to great lengths on the importance of thoroughly examining the problem and gathering the necessary facts. Yet, at the same time, it outlines the "staffs" responsibilities by staff section, rather than applying functional skills using a teaming methodology. The need for cross-functional fertilization is strongest when conducting planning in a complex environment. Strategic level headquarters must integrate information across multiple disciplines and organizations in order to plan effectively. Since strategic headquarters must also have multiple parallel processes going on, it is essential that the "staff" can form teams in order to work specific problems without drawing effort away from other pressing problems. One of the repeated criticisms of the plans for Operation Iraqi Freedom is that they did not include a concept for what would happen after Baghdad fell, or "phase IV" as it came to be called.[19] Some of this can be attributed to the time and energy the staffs were devoting to planning for and managing the earlier phases of the plans. This essentially left the staff without the time, energy, or resources to devote to planning the later operations. Had the staffs been able to form horizontal teams to focus on solving the phase IV problem, they may have produced a plan that was better able to react to conditions as they developed on the ground.

One example where an organization is experimenting with creating an organizational structure that breaks the current paradigm is the United States Africa Command.[20] The new command is organized with representation based on functions rather than traditional staff stovepipes. It will seek to have representation from United States Government organizations outside the DoD and from other non-government organizations. While this concept is currently untested, as the command only

established initial operational capability effective 1 October 2007, it will be interesting to see if the command can achieve the promised degree of integration.

The Process of Change

John Kotter postulates that there is an eight-step process to creating change in organizations: establish a sense of urgency, create a guiding coalition, develop a vision and strategy, communicate the change vision, empower broad-based action, generate short-term wins, consolidate gains and produce more change, and anchor new approaches in the culture.[21] Using Kotter's model, we begin to postulate what steps might be necessary to change staff organizations in the United States Army in order to achieve a new staff model that produces greater horizontal integration than the current model.

Leveraging perceived failures in Iraq assists in building urgency for change. The post-Vietnam generation of officers brought about significant change in the Army due to the soul searching that occurred throughout the Army because of the situation the Army found itself in. If the same case is apparent to the younger officers and non-commissioned officers of today's Army, that there is an urgent need to modify how headquarters are organized and managed, then there will be a strong impetus for change. This leads itself to the second step in the model; there must be a guiding coalition for the change. The coalition will need to consist of senior officers that have the personality and position to drive the mechanics of the change, a coalition of intellectually smart and articulate junior officers, and non-commissioned officers who can develop a broad impetus across the Army to embrace the need for the change.

The coalition will need to build support not only across the Army, but will need to "sell" that sense of urgency to the joint community, DoD, and to Congress.

The coalition will then need to work to create a guiding vision for the change. Just as "Airland Battle" became a guiding vision for the rebuilding of the Army after Vietnam, there must be a guiding vision for radical change to headquarters organizations and officer development to drive change forward. There will need to be changes made to doctrine, organizations, officer developmental models, and possibly changes to the law. The communication of this vision will need to be done not only to the internal audiences inside the Army, but to audiences outside the Army, especially to the joint community and to the Congress of the United States.

The need for senior leader support to empower this change is critical. New structures will need to be built and documented with radically different functions and processes. These organizations will need to be manned, equipped, trained, and tested to ensure that they achieve the desired purposes. The testing of the organizations creates the opportunity for the "short-term wins" without derailing the need for change. A major exercise and deploying one of these new strategic headquarters operationally could greatly help demonstrate the effectiveness of the new command and control (C^2) paradigm. United States Africa Command (USAFRICOM) might be one opportunity to do this. As the command is new, there will be less institutional resistance to change. There are consistent opportunities to conduct small-scale operations throughout the African continent. If AFRICOM employed a command post in order to oversee a successful operation, the momentum for this concept could be boosted substantially. Of

course, any such effort carries with it the substantial risk that if the operation failed blame will be on the new organization.

Success with the new organization would allow documented changes across the Army. Since the costs of organizational changes are relatively low compared to equipment changes this could be put into effect rapidly thus sustaining the momentum for change. Rewarding commanders and staff officers who are successful in the new organizations would assist in inculcating the new paradigm into the Army culture. Over time, any lingering nostalgia for the old structures would gradually fade and newer generations of officers would accept it with the same willingness that the current generation accepts the model of the "S-staff" organization.

The fundamental structure of Army headquarters used for command and control has remained essentially unchanged for over a century. This has become deeply ingrained in the Army culture as is reflected in many ceremonies and traditions. Heritage and tradition are very important to military personnel, and this dynamic creates a high degree of resistance to altering this structure. If the leaders of the Army can recognize an urgent need for change, then they can begin to move forward to bring about meaningful change enabling command and control to remain effective and relevant in the 21st Century.

<u>The Role of Technology as an Enabler</u>

All of the requisites above have an underlying assumption that the necessary technologies are ubiquitously present. The reality has been quite different across the Army. When the 3rd Infantry Division went to war at the start of Operation Iraqi Freedom (OIF) they were only equipped with the 1980's generation Mobile Subscriber

Equipment. Communications gaps left many units without information they needed to conduct the fight.[22] One of the 3rd Infantry Division units, 3-69 Armor Battalion, Commanded by Lieutenant Colonel Marcone, was left to fight virtually on its own at OBJECTIVE PEACH due to the lack of reliable communications.

Recognizing that MSE could no longer support the bandwidth needed in a modern fight, the Army set about acquiring new capabilities. The Army's latest system for connecting headquarters together is the Joint Network Node (JNN) system, recently renamed as Warfighter Information Network – Terrestrial, Increment 1 (WIN-T, inc. 1). This system has been funded entirely through supplemental appropriations to units rotating into Iraqi Freedom or Enduring Freedom.[23]

As the further increments of WIN-T are designed and fielded to the force it is essential to recognize that the network must be ephemeral for the staff officer and Non Commissioned Officer in the headquarters. Network enabled technology is the fundamental medium through which the Command and Control structure operates. If that functioning is constrained through bandwidth congestion, poorly designed security policy or other impediments it lessens the ability of the virtual teams to be effective.[24]

The "network" consists not only of the wires, cables, and systems that move the data, but also of the devices that the team member users, servers where data and collaboration tools reside and all the parts that make up the network itself. Team members must be able to rapidly establish forums for collaboration that are open and available to the team members, but also afford a degree of security and privacy to the team members so that ideas can be traded and examined without fear of premature censure.

The design of applications to support collaboration must be focused on ensuring that applications assist rather than hinder collaboration. If everyone is not using the same application, they must at least have a standard set of protocols and formats so that the information is intelligible at all ends. While the current set of procurement models implies that the users establish a requirement and then a product is procured to meet the requirement, the reality is usually the reverse. The best way to find products that work for people is to put out an array of applications and then observe which ones are actually used.

An example of the evolution in the usability of applications is seen through the Army's maneuver control system (MCS) program. The program was intended to provide a system that maneuver commanders could use to visualize the battlefield. The first version of the system was a very heavy device running Unix applications. The system was never adopted or widely used in the Army and was perceived as far too unwieldy. The army then moved to a program called Maneuver Control System – Light (MCS-L) which ran on the laptops of headquarters. The MCS-L system was used fairly widely by Division and Corps staffs as a planning tool, but provided only limited utility as a current operations tool. For Operation Iraqi Freedom II the First Cavalry Division brought a program called Command Post of the Future (CPoF) to Iraq which included better visualization and collaboration tools than the MCS-L platform. Third Infantry Division deployed to replace 1st Cavalry Division with both MCS-L and CPoF, but the usage quickly moved to the CPoF platform due to the ease of use and superior collaboration capability.

The CPoF tool was used by both commanders and staffs to team virtually across multiple locations in Baghdad. CPoF was not considered a program of record at the time and did not have an approved capabilities requirements document (CRD) and yet it was the tool of choice. In order to maintain momentum and effectiveness of transitions to virtual teams the flexibility will need to exist to acquire and deploy tools that are actually used by teams rather than waiting for the current ponderous and unwieldy Program of Record acquisition system.

Reward Systems in Horizontal Organizations

One of the greatest challenges to moving away from a hierarchical organization to virtual teams and horizontal organizations is implementing an advancement model and reward system that encourages performance in an environment where the organization has little elevated structure and an individual may work for many “bosses”.

Translating civilian reward structures into those that will be effective from a military standpoint are going to require both a great culture shift and a high degree of innovation. Much of the business writing on reward structures focuses on monetary compensation.[25]

The current military structure focuses on awards which are non-monetary such as medals, certificates, and coins, and on evaluations that enhance progression in rank or grade. The current military evaluation system is also heavily focused on a hierarchical and stove piped mind set. Each individual has a single rater and senior rater. There is not a provision for meaningful input from peers or other individuals that the rated individual might work for on other teams.

One methodology of using the civilian strategy to reward team performance might be to adopt a strategy similar to that of the new National Security Personnel System (NSPS). Adopt a "pay pool" for an organization where individuals are rewarded based on their contribution to the accomplishment of the goals of the organization. Given that the Army is already paying premiums to retain individuals in certain specialties and grades it might be more effective to reward based on contributions to the organization rather than on simply qualifying for a certain age group or training. There could also be adjustments made to the pay pool based on particularly difficult conditions or missions. Headquarters of deployed units could receive a larger pay pool than headquarters of non-deployable units as an example.

Further adjustments to the advancement systems might also be required. Under Officer Personnel Management System (OPMS) XXI the Army established functional areas where individuals could focus on a specialized skill, knowing that it would limit their advancement. The trade off was that they could focus on what they enjoyed doing and receive further specialized training rather than being forced into jobs that they did not enjoy simply to remain in the military. The next step would be to broaden the input into an individual's evaluation to recognize that in a virtual world one individual could be contributing to many teams. As a simplistic example, a computer specialist in a division headquarters might contribute to the effectiveness of an operational planning team, a current operations team, and a public affairs team. Ideally, each of those teams should be able to provide input into the individual's evaluation reflecting how the automation specialists' contributions made the team more effective.

Interestingly, technology currently being adopted by the Army might further facilitate this paradigm shift. The Army recently moved to an electronic evaluation system with digital signatures in place of an archaic paper copy system. This digital system would theoretically allow input from more than one rater, possibly in more than one geographic location, to be collated and presented to the senior rater when the individual is evaluated. Using an expanded version of this system would be a step towards rewarding collaborative behaviors among staff officers and non-commissioned officers.

Training and Leader Development

In order for a transformation to a horizontal mindset to be effective, it is essential not only to have visions and directives, but it is essential to train those that will serve on the staffs in the new paradigm.[26] The Army expends a great deal of training on processes, procedures, and tasks – but little on organization and functions.

In the 1980's the Army introduced the Combined Arms Service Staff School (CAS3) as a course for training the staff officer. The curriculum at the time focused heavily on the preparation of written products, briefings, and the military decision-making process. Over time the course was diluted until it was subsumed into the Captains Career Course.

In order to implement this change, a new version of CAS3 would need to be introduced that is targeted at both the staff Captain and the Staff Non-commissioned officer. The course would need to teach not only processes and procedures, but ingrain an understanding of how to be an effective member of a collaborative team. The value of the course would be improved dramatically by instructing it at multiple locations and

as part of the training program having the students work on collaborative teams across multiple training locations. This would have a double advantage of both reducing cost and stress by moving people from their home station to attend the course, and further emphasizing the value of virtual teams across time and distance.

Once the "staff basic course" is established, refresher and advanced versions of the curriculum would need to be introduced at the more senior levels of education. The Intermediate Level Education (ILE), Advanced Non-Commissioned Officer Course (ANCOC) and United States Army War College (USAWC) would all need to be revised to reflect the reality that as rank increases the predominance of officers and NCO's will move out of line positions and into staff positions. All of these courses tend to emphasize command of units even though the bulk of these students will move into staff positions after their training.

The Way Ahead

The United States Army is in the process of establishing an Army Experimentation Task Force at Fort Bliss Texas in order to evaluate the effectiveness of Future Combat Systems (FCS) technologies at the Brigade and Below level. As part of the experimentation a headquarters structure should be established that can test horizontal concepts in a controlled environment and look for the most amenable candidates for implementation.

There are some functions that have already begun to implement virtual teams in a rudimentary manner. Those success should be tested and further developed in order to demonstrate that virtual teams can be effective and should be used for wider adoption across the Army.

An example of this can be found in mapping and imagery products. Currently each division and higher headquarters has a terrain team that is organic to the engineer section that provides mapping and imagery to the headquarters. Traditionally, tension has developed between the G2 (intelligence) and the Division Engineer over ownership of the team. When used effectively it is not pertinent who has “ownership” of the terrain team. What matters is that terrain team experts are able to become part of intelligence teams and mobility / engineering teams in order to make both functions more effective.

Terrain teams are currently equipped with specialized tools that enable them to reach back to the National Geospatial Agency (NGA) and other organizations to obtain mapping and imagery data; however, they are constrained in the extent they can do this because of the limited bandwidth of current reach back communications systems. Establishing a test environment with communications that emulate capabilities to be fielded in a the near future should demonstrate the tremendous increases in capabilities possible at a lowered forward manpower footprint.

A second area that would be very effective to target for testing these new concepts would be the communications management function. Currently network management cells exist at the Brigade Combat team, Division, Corps, JTF, and theater levels. In addition each service has their own network management architecture even when they are geographically co-mingled. Virtually integrating these teams across echelons would allow the lowest echelons to leverage the expensive and low density expertise available at higher echelons and reach back locations. It would also allow better balancing of manpower across geographic boundaries in order to ensure that

expertise is physically closer to the problem when it is necessary to be present at the equipment in order to re-establish communications.

Properly managed, these communications teams should provide better support to all levels of the network. Currently each network management level is focused on providing the best possible support to "their" customer. The drawback to this approach is that there is only one network and resources may be allocated in order to optimize a single customer instead of optimizing the entire network. With a true horizontal outlook all teams would be focused on providing the best possible communications to the true customers, those who perform the basic warfighting functions of the United States Army.

Conclusion

The Army is on the cusp of being able to have the communications infrastructure necessary to implement horizontal organizations and virtual teams across geographic and time boundaries. The leadership of the Army needs to embrace a vision that recognizes the value of these teams and supports their functioning in order to accelerate the speed and accuracy of decisionmaking while reducing redundant structures currently existing in the upper echelons of the Army.

The DoD has invested billions of dollars in providing improved communications, networking and automation capability to headquarters throughout DoD. Many DoD organizations have simply overlaid that technology on their existing structures and processes. The opportunity now exists to change those structures and processes to make them more effective and agile, while requiring less personnel to perform the

improved functions. This will truly enable the establishment of a responsive, adaptive United States military.

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